

FIG. 1A

FIG. 1

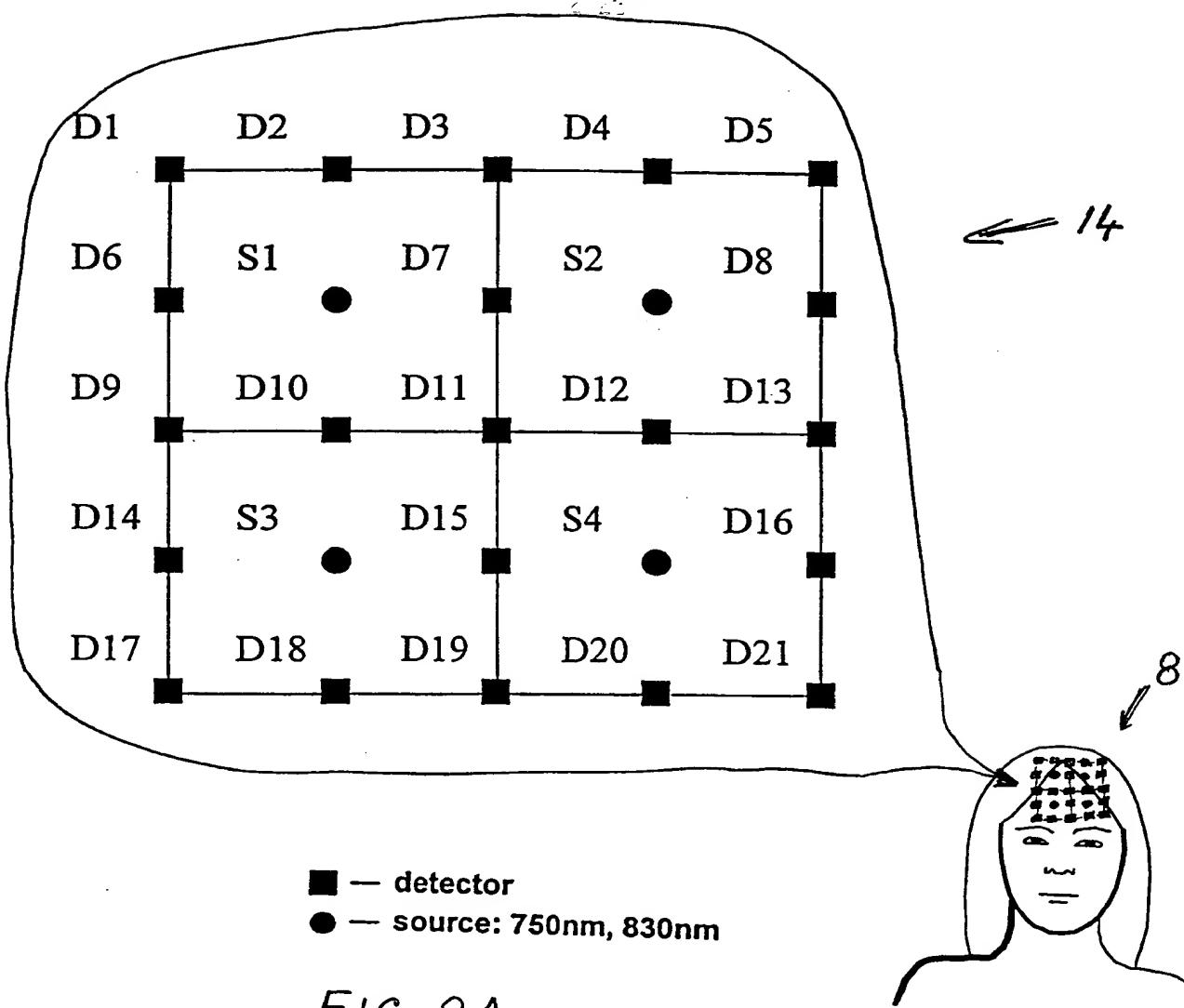


FIG. 2A

FIG. 2

50 MHz SINGLE WAVELENGTH PMS/PHASE ARRAY IMAGE SYSTEM

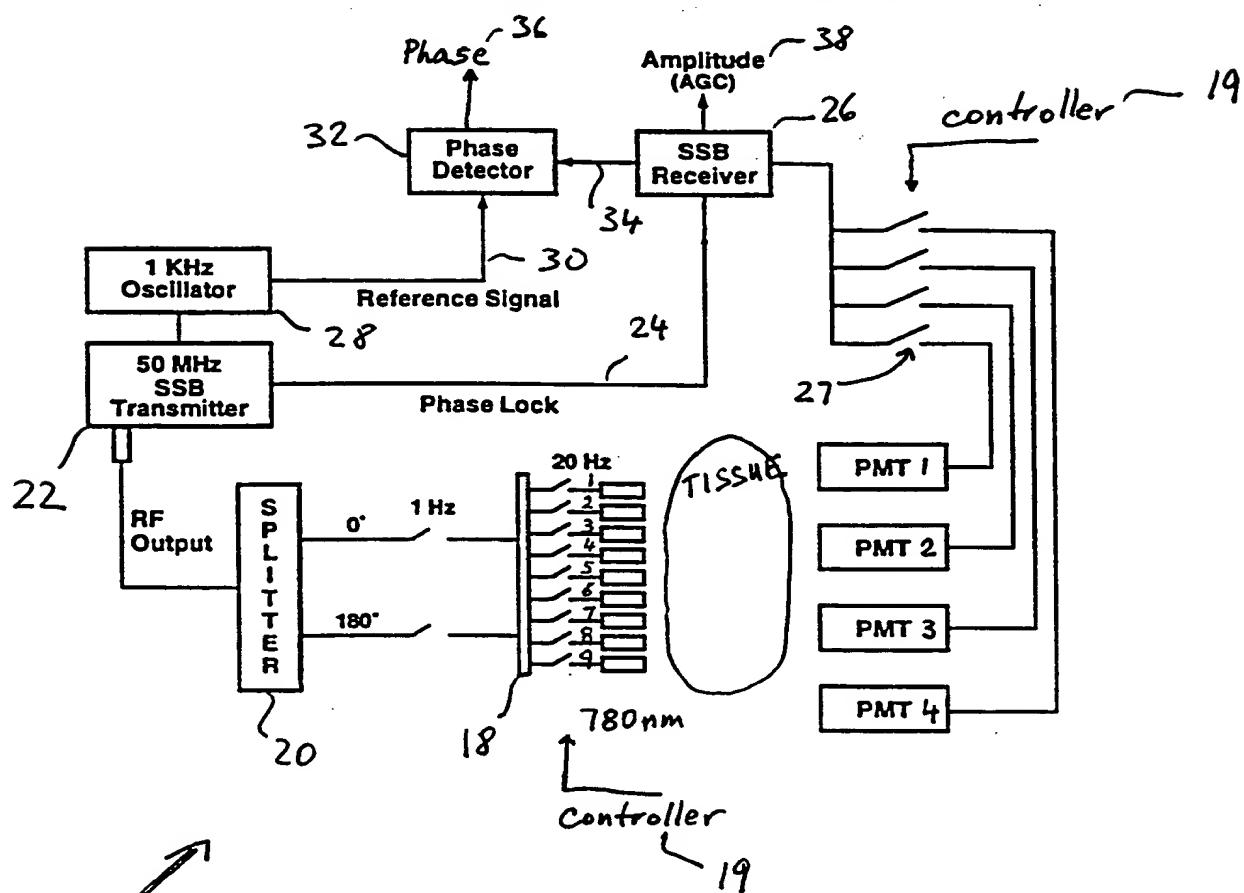


FIG. 3

45

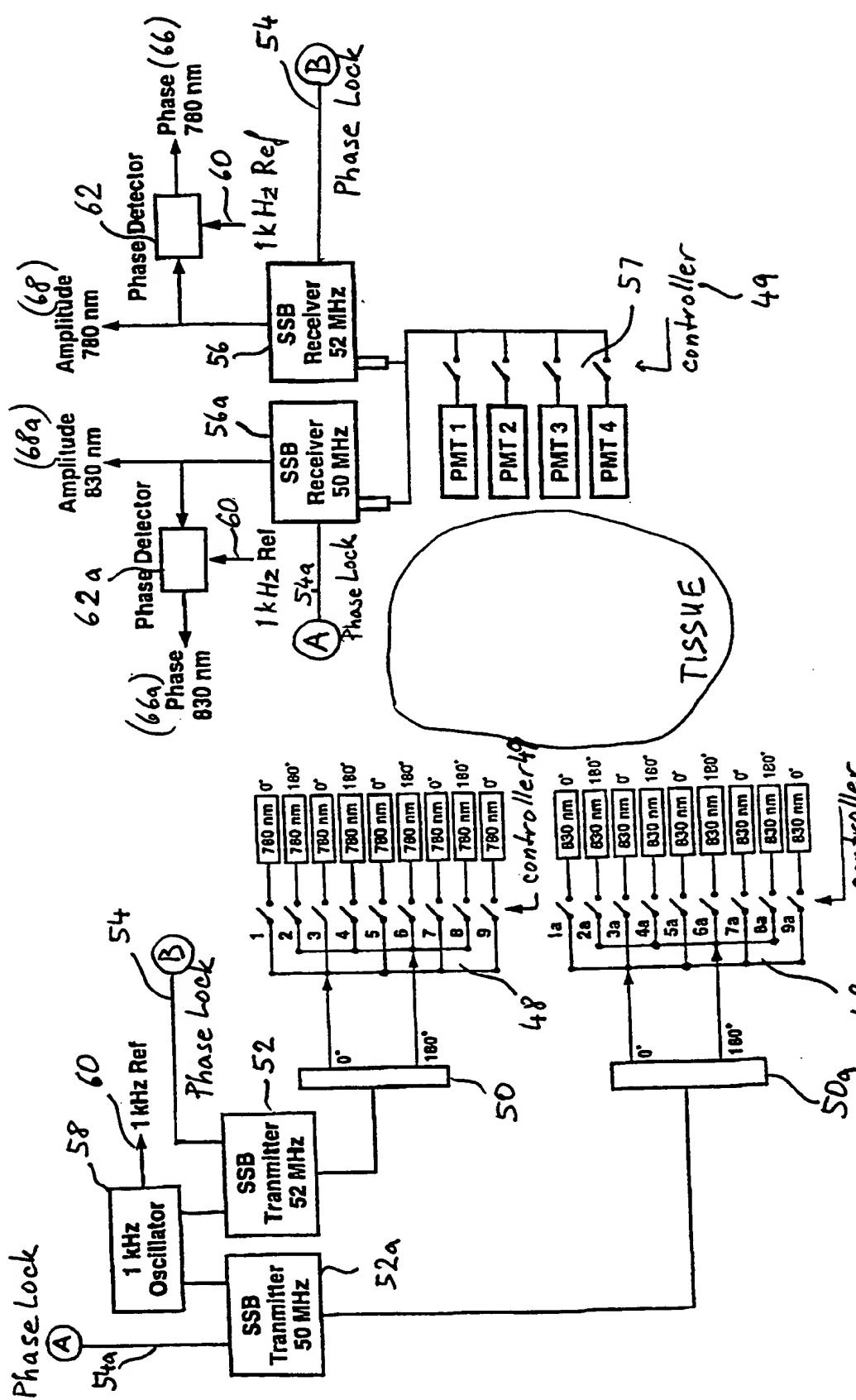


FIG. 3A

49

Sources	Detectors
1, 2, 1a, and 2a	1
2, 3, 2a, and 3a	2
4, 5, 4a, and 5a	1
5, 6, 5a, and 4a	2
7, 8, 7a, and 8a	3
8, 9, 8a, and 9a	4
4, 5, 4a, and 5a	3
5, 6, 5a, and 6a	4
7, 8, 7a and 8a	3

40

FIG. 3B

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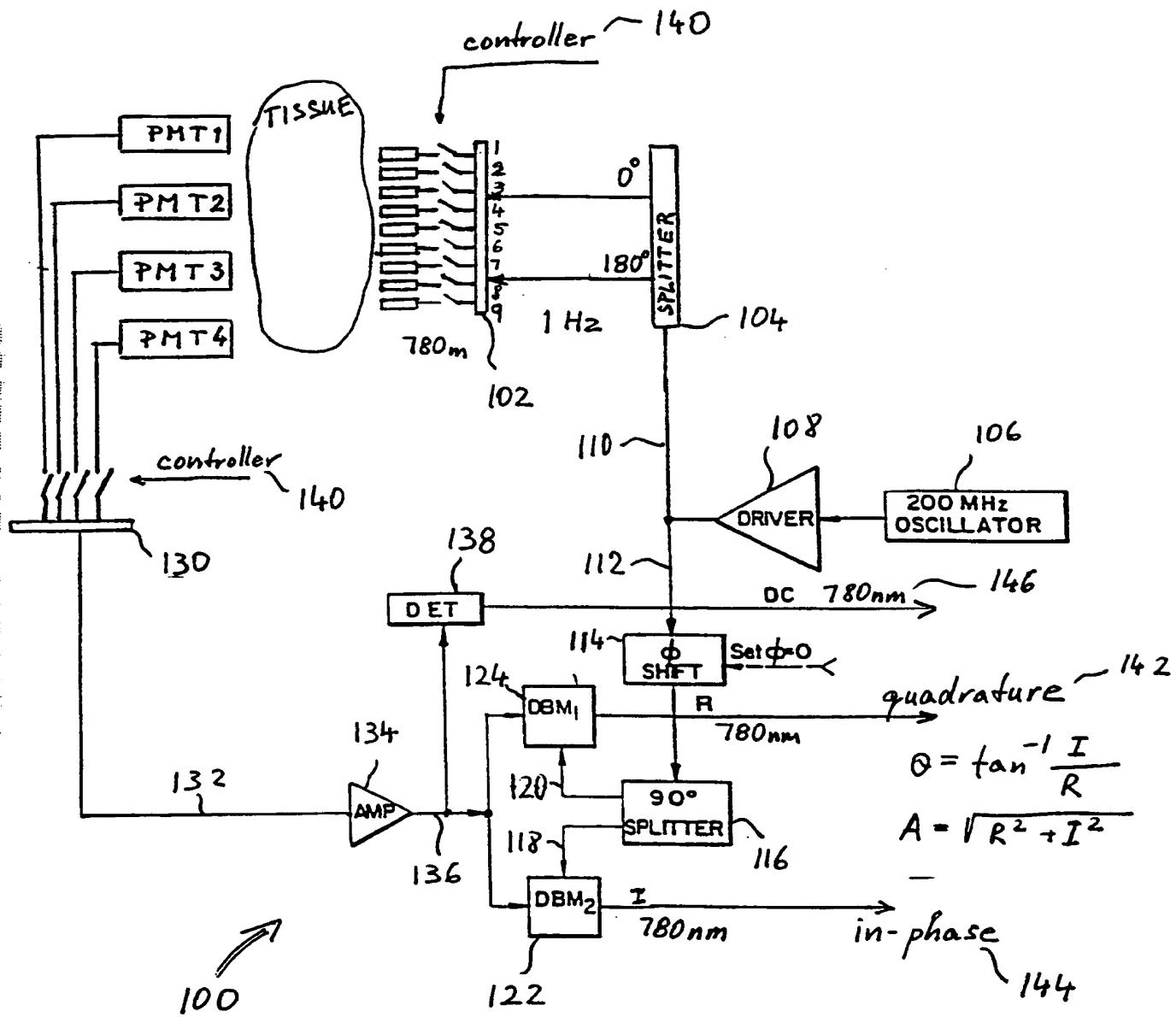
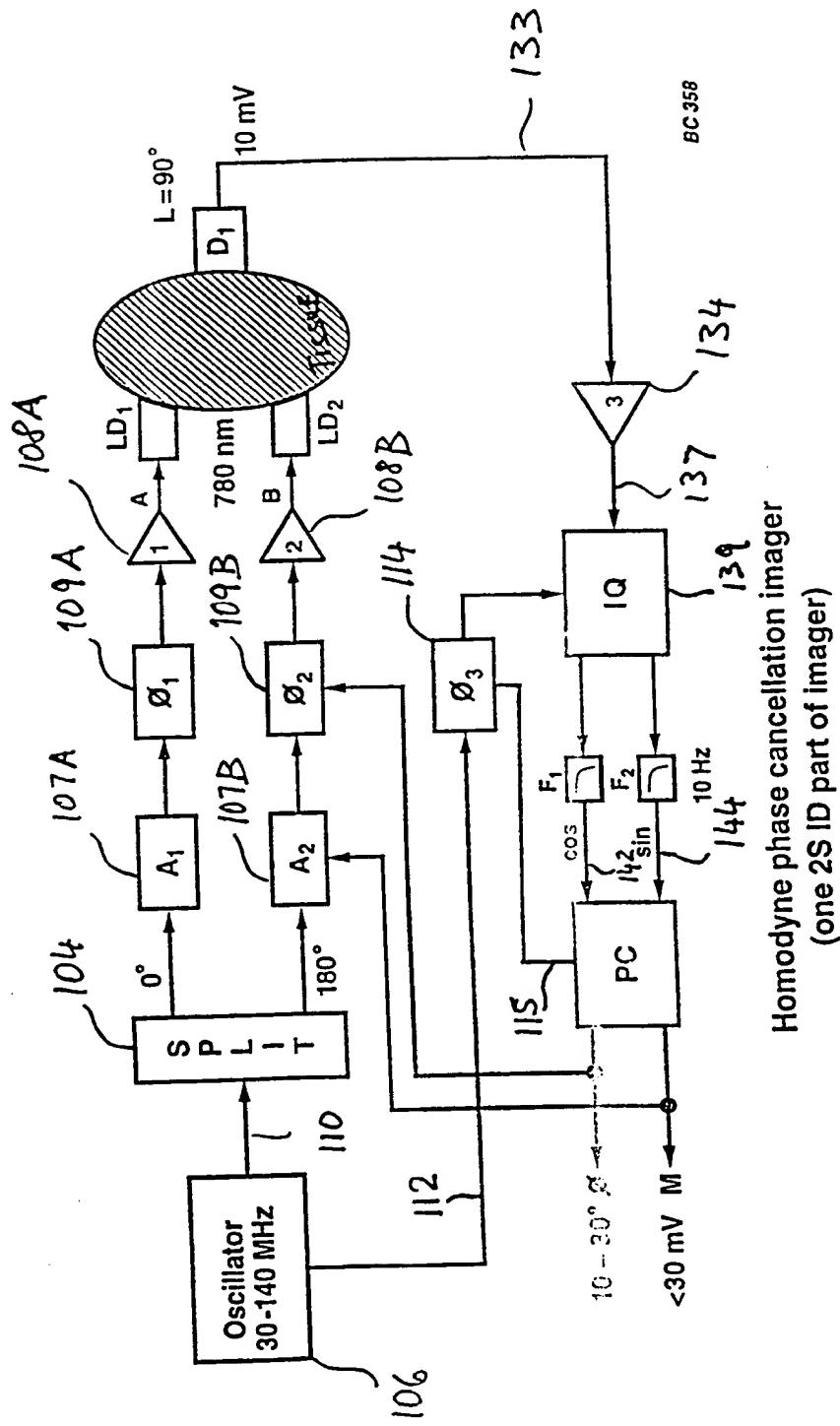


FIG. 4



Homodyne phase cancellation imager
(one 2S ID part of imager)

FIG. 4A

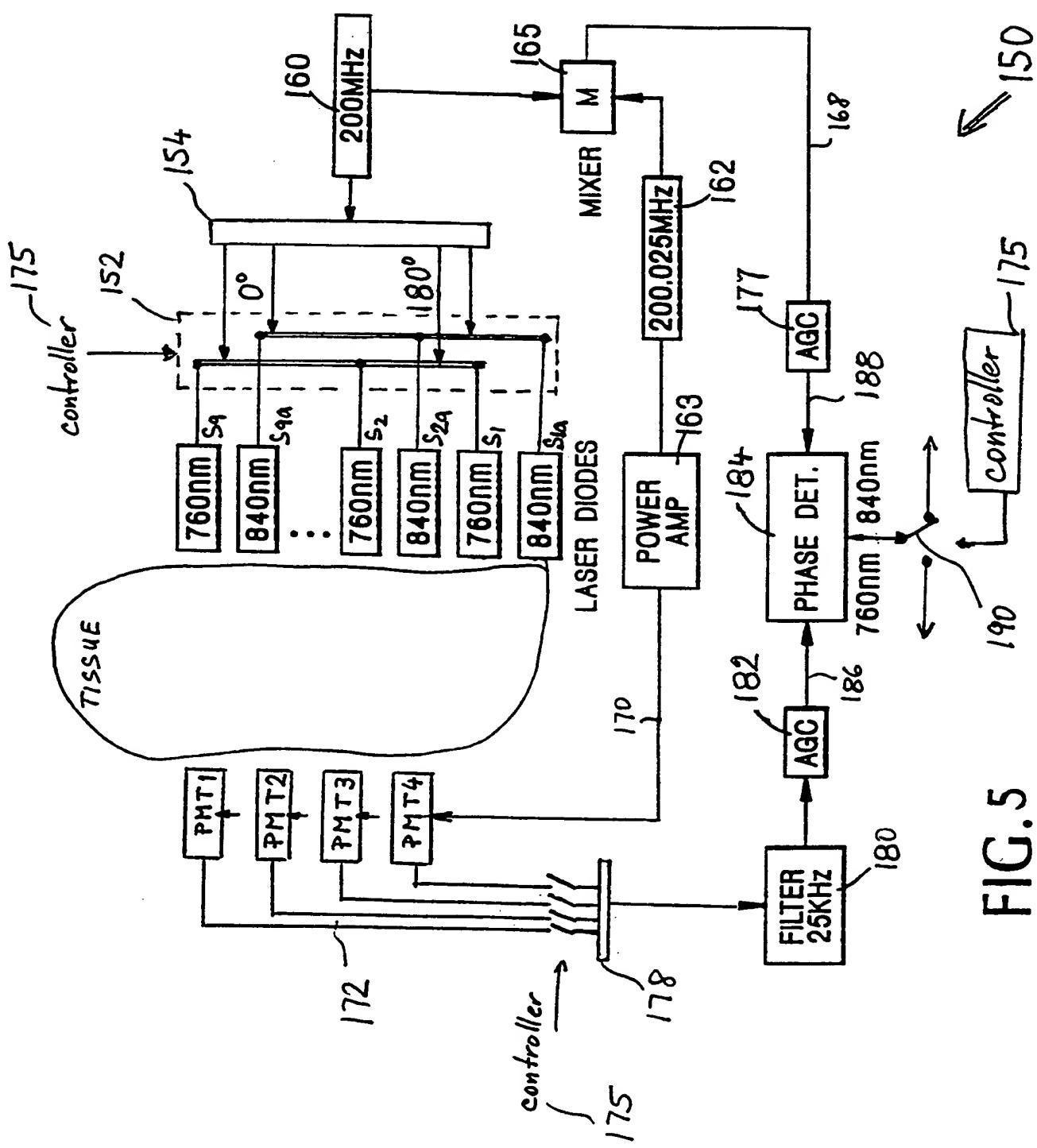


FIG. 5

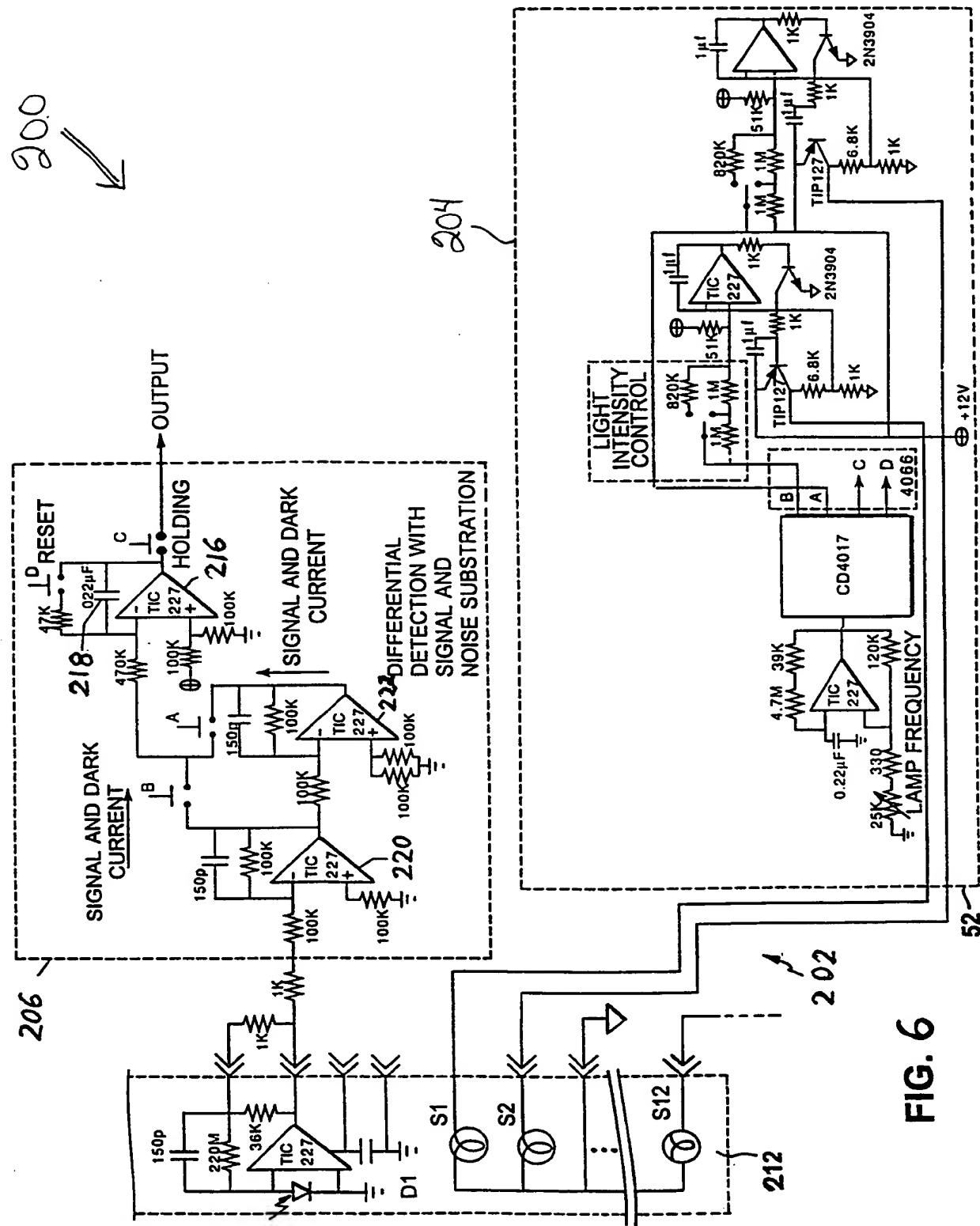
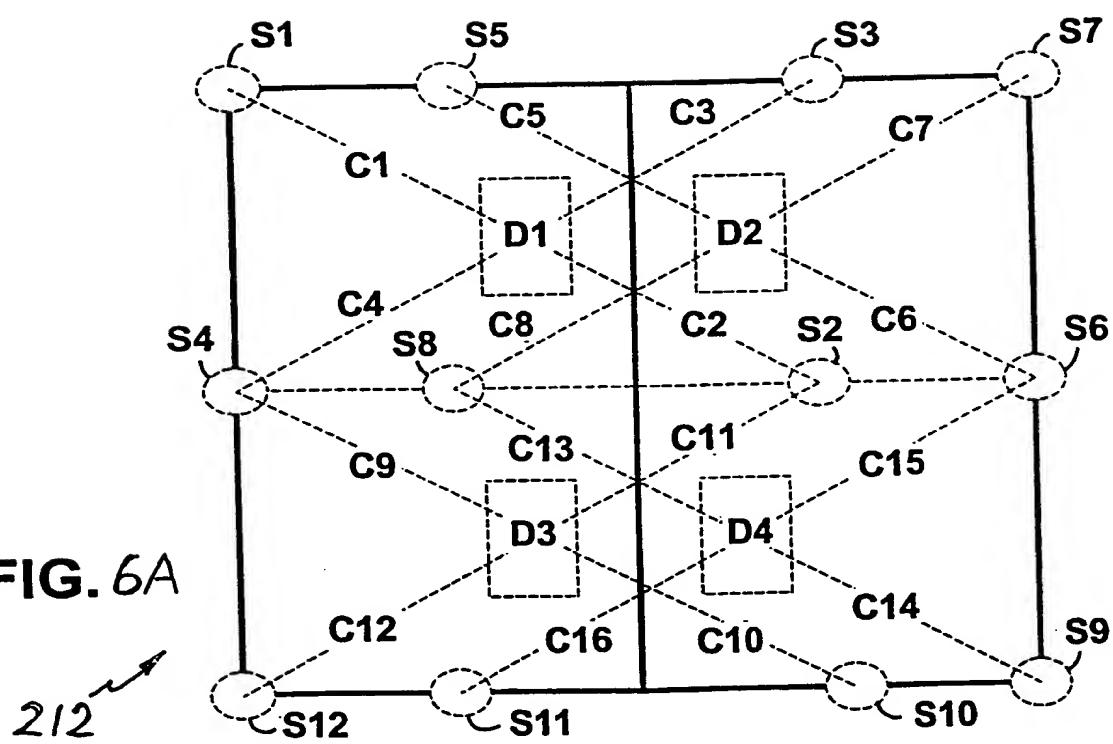


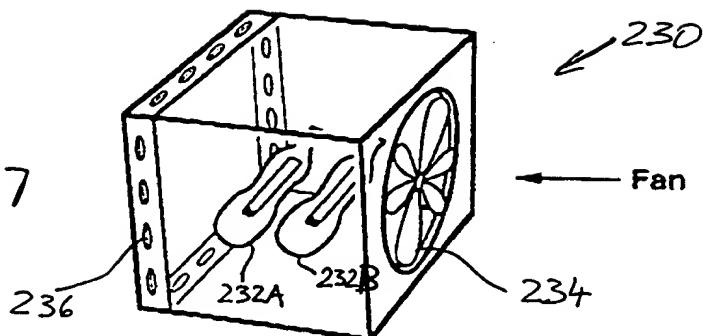
FIG. 6

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FIG. 6A

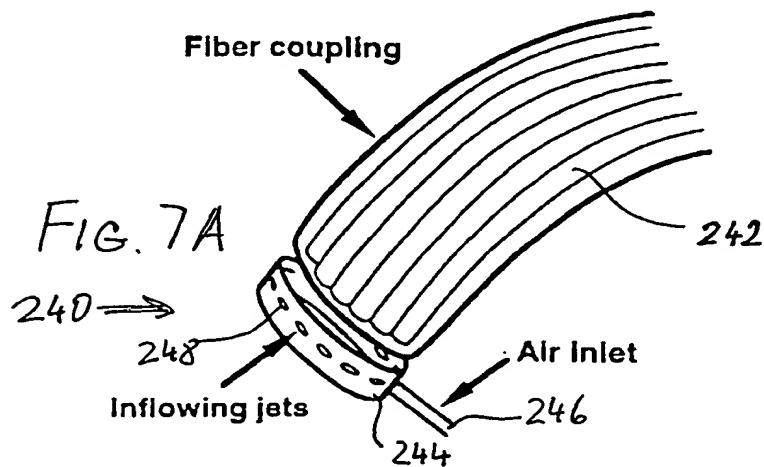
Air cooled lamp

FIG. 7



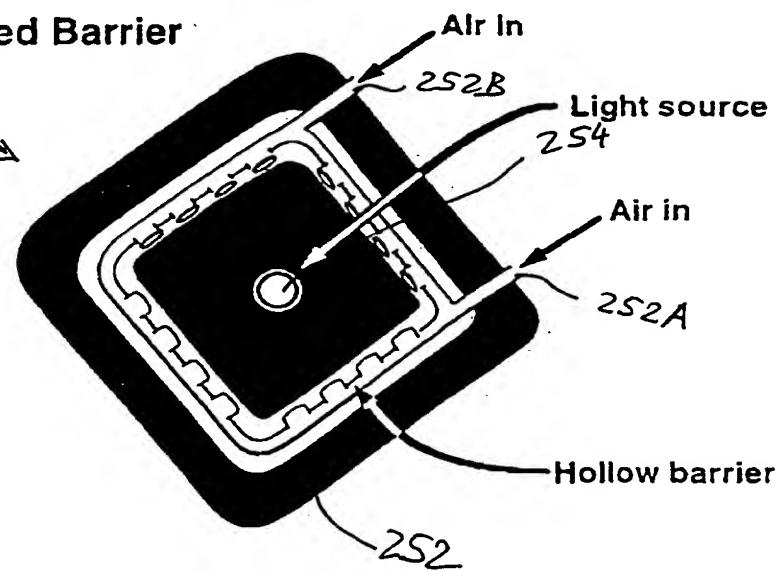
Air cooled light guide

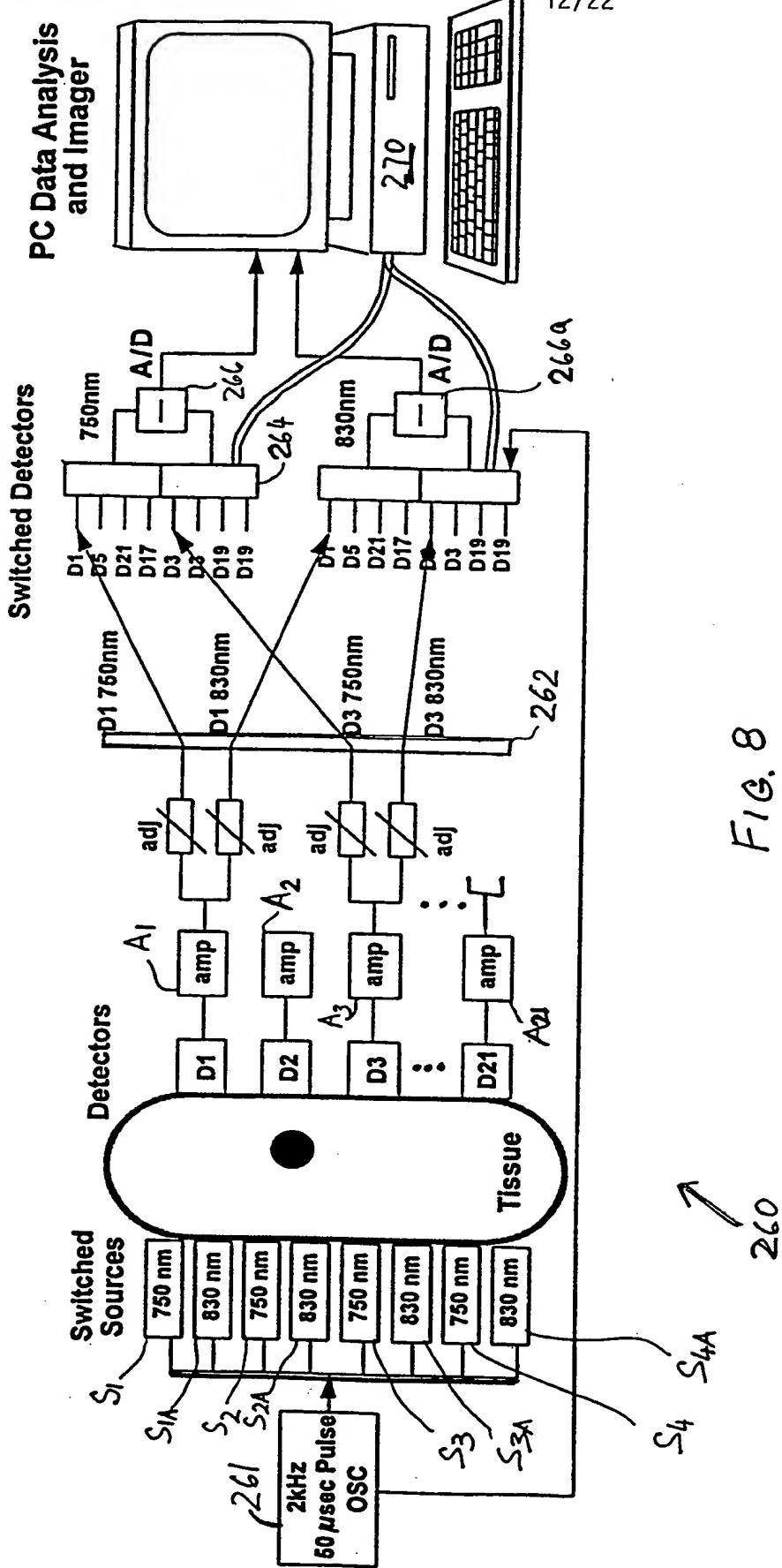
FIG. 7A



Air cooled Barrier

FIG. 7B





**CIRCUIT CONFIGURATION FOR
TIME MULTIPLEX AMPLITUDE CANCELLATION IMAGER**

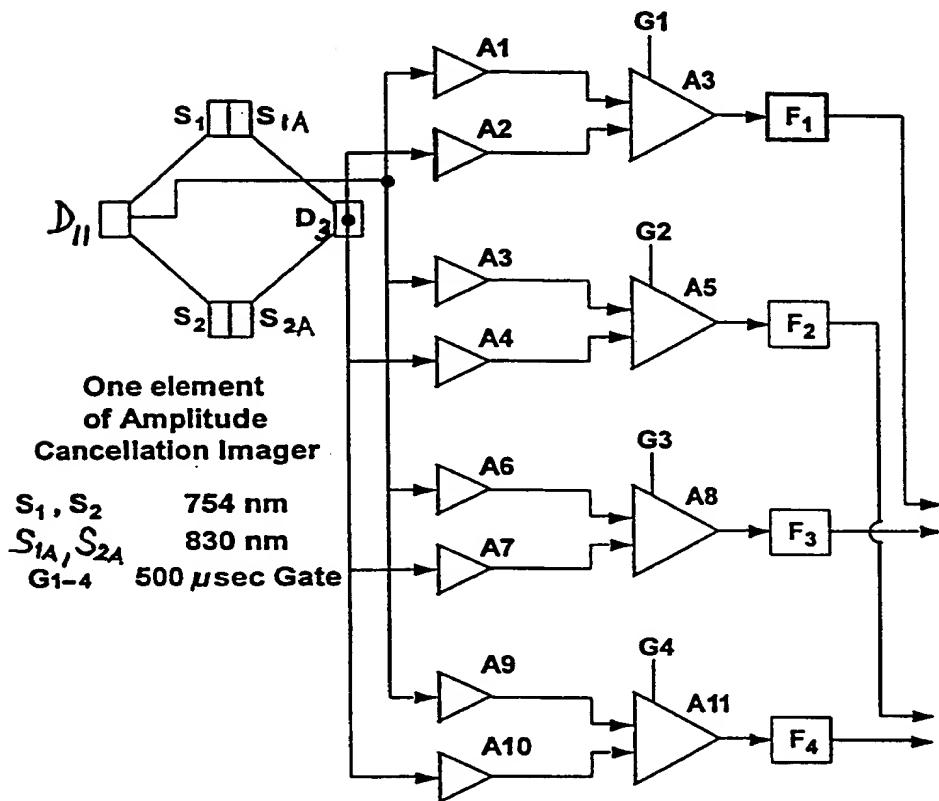


FIG. 8A

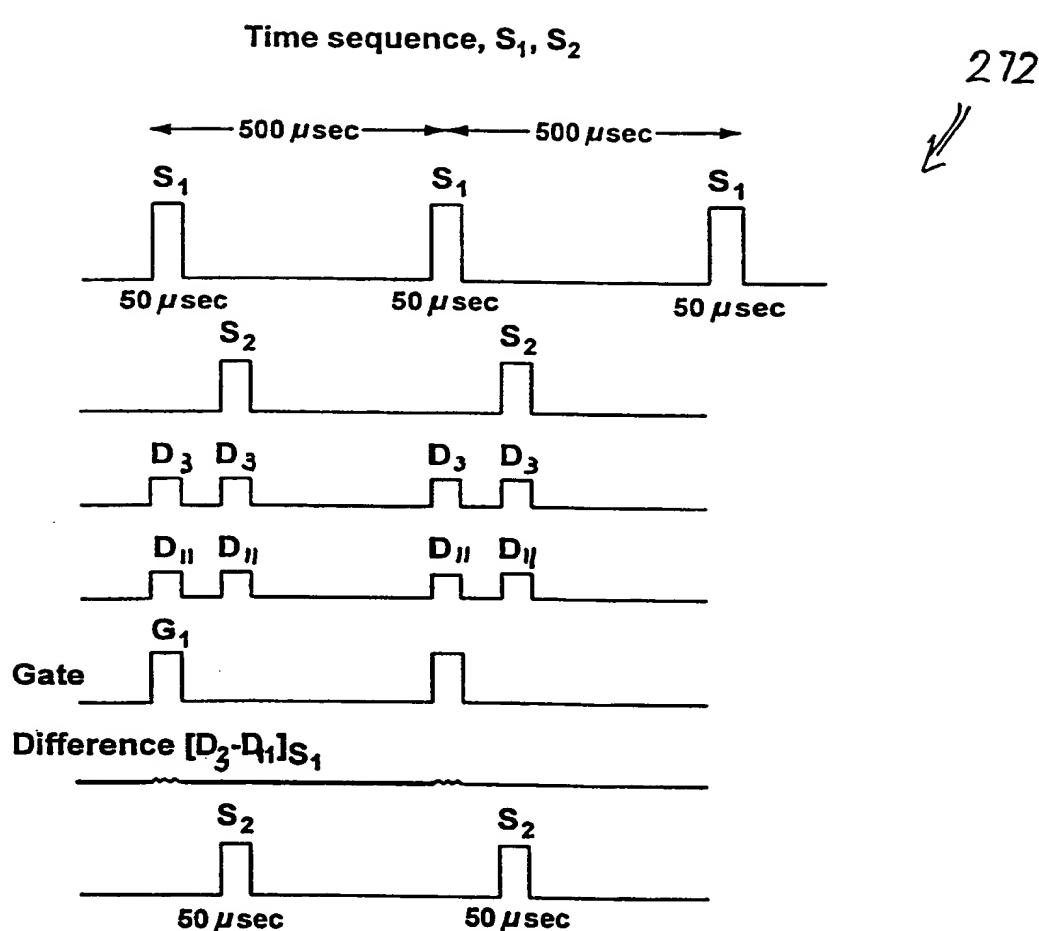


FIG. 8B

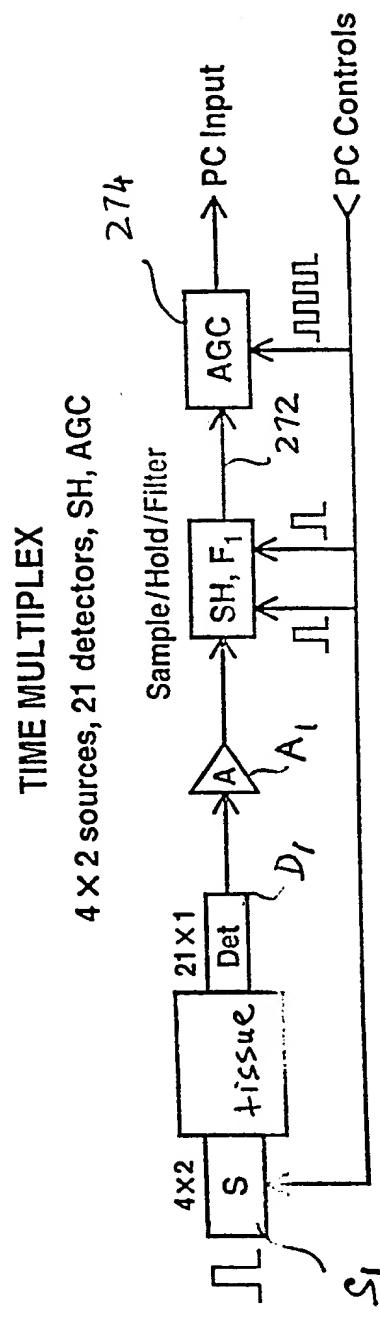


FIG. 8C

260A

FREQUENCY MULTIPLEX
21 X 2 sources/oscillators, 4 detectors, 40 filters (high/low), 20 AGC, 20 Lock-in

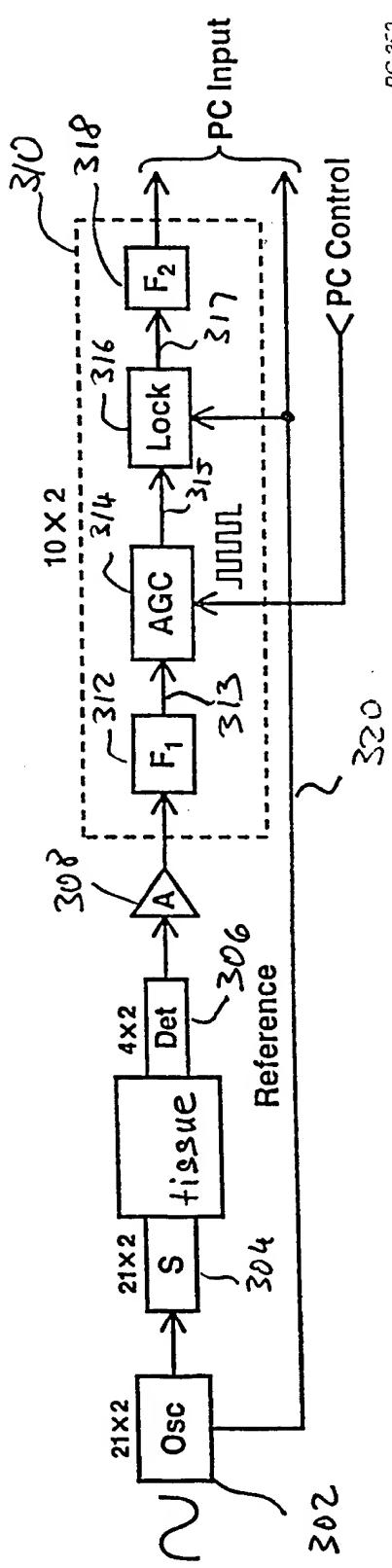


FIG. 8D

300

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Dual Wavelength NIR Phased Array Imager 2D Vasculogenesis VS Hypermetabolism Imagery

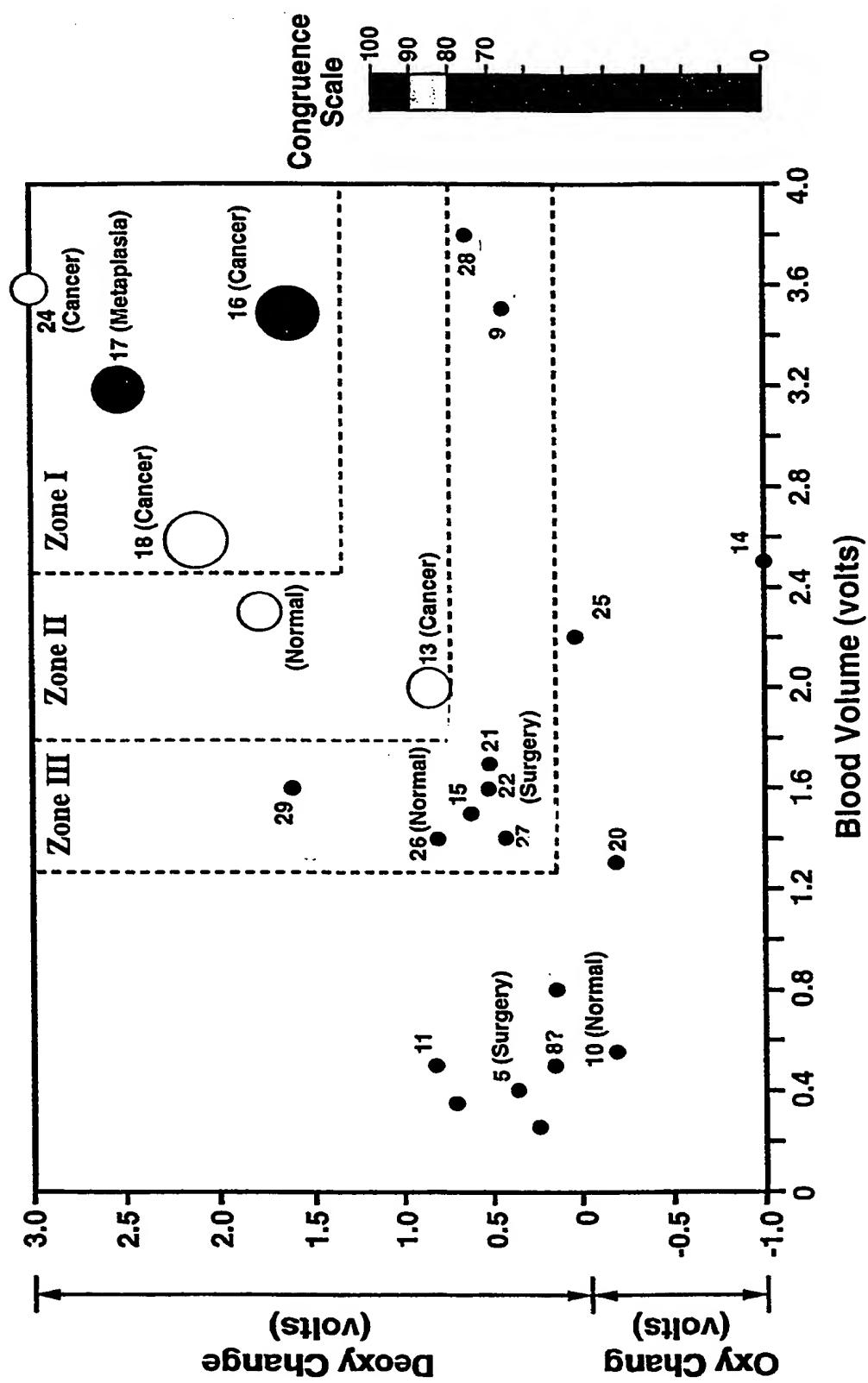
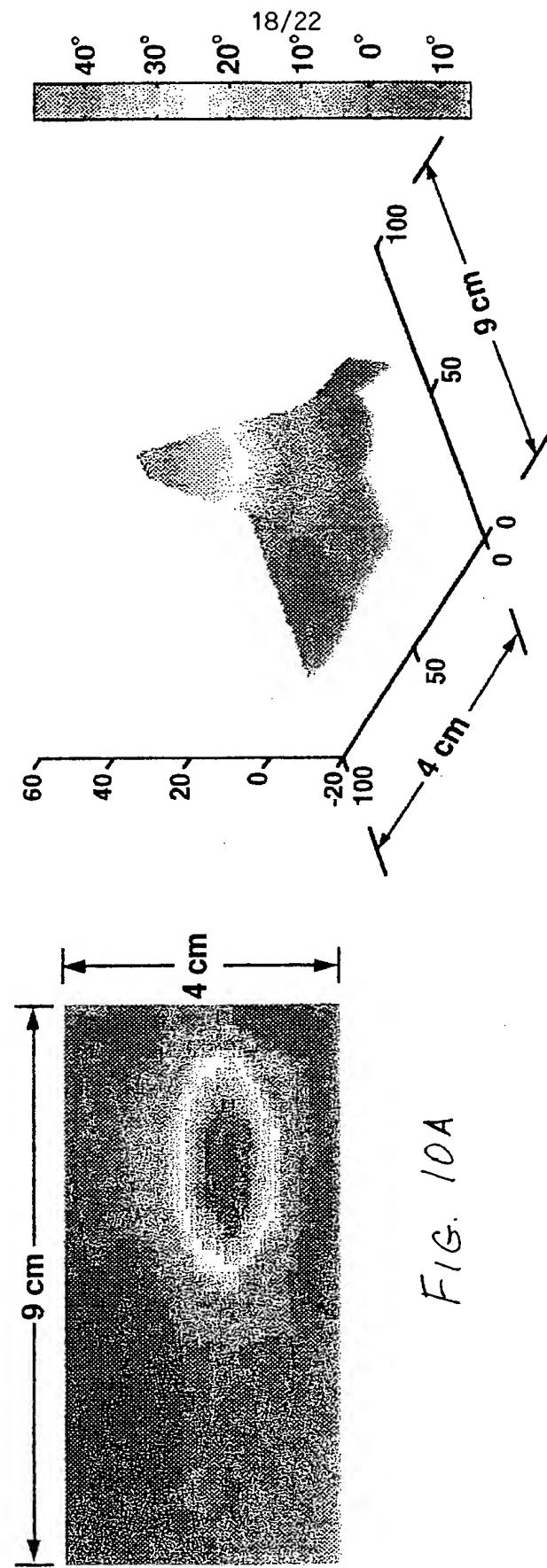


FIG. 9

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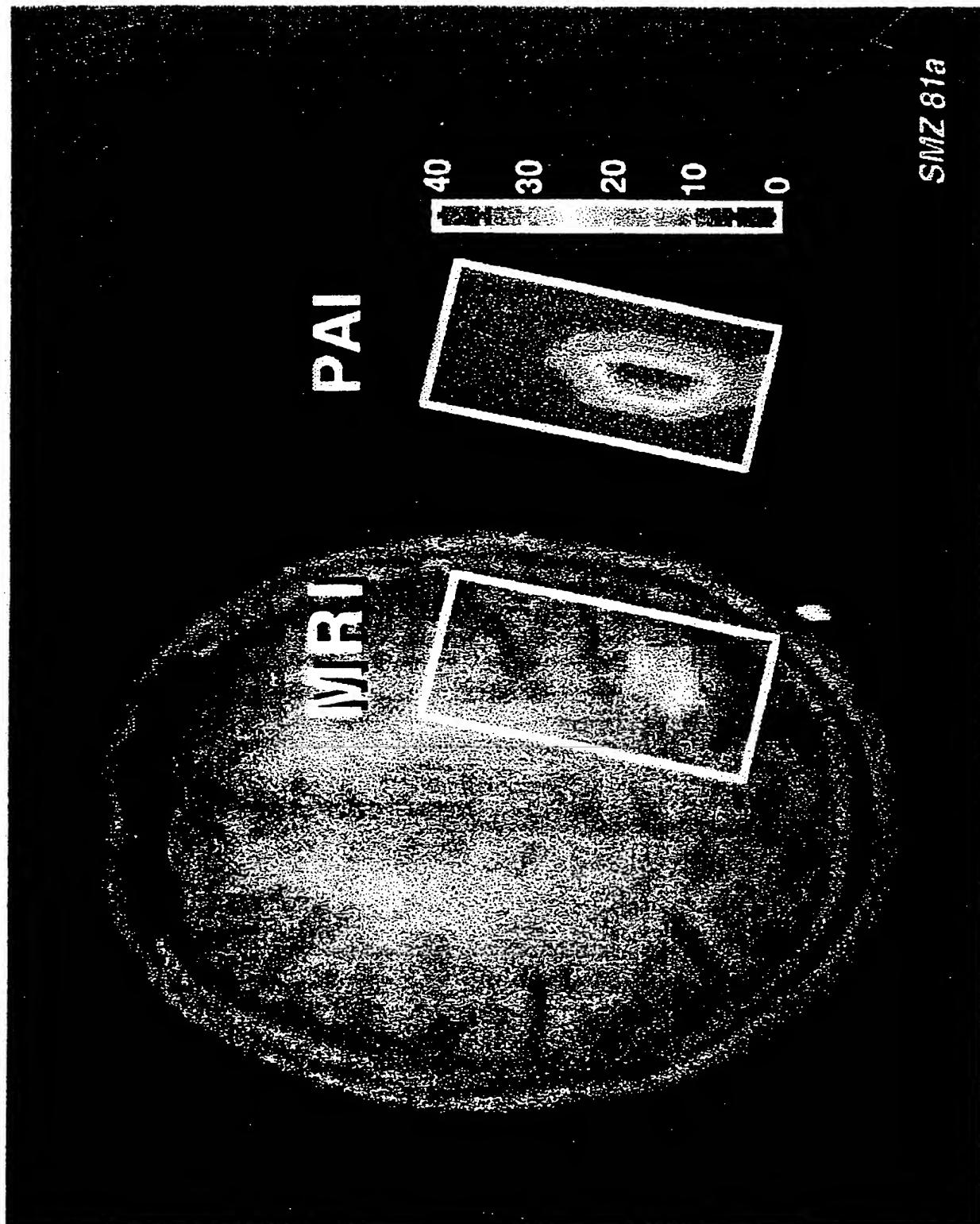
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Phase Array Repetitive Study on Forehead

(backward spelling 30s minus rest 30s)

hairline

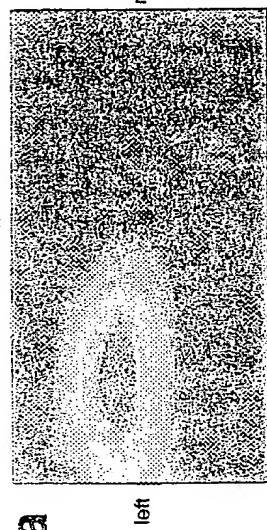


Fig.12a

hairline

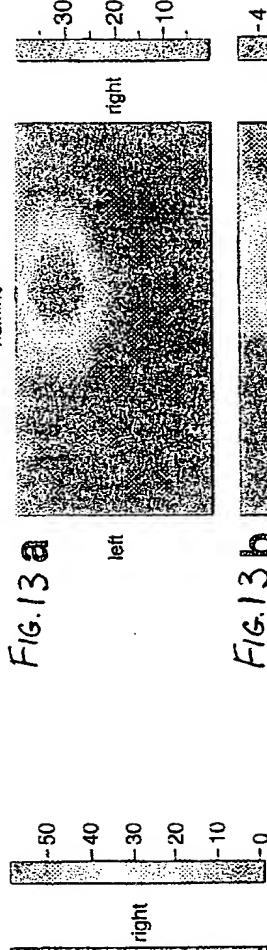


Fig.12b

hairline

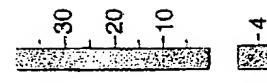


Fig.13a

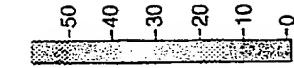


Fig.13b

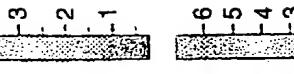


Fig.13c

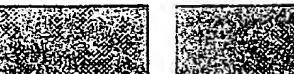
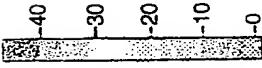


Fig.13c



Fig.13d



nosebridge
eyebrow

Digital 1b

eyebrow

KW2

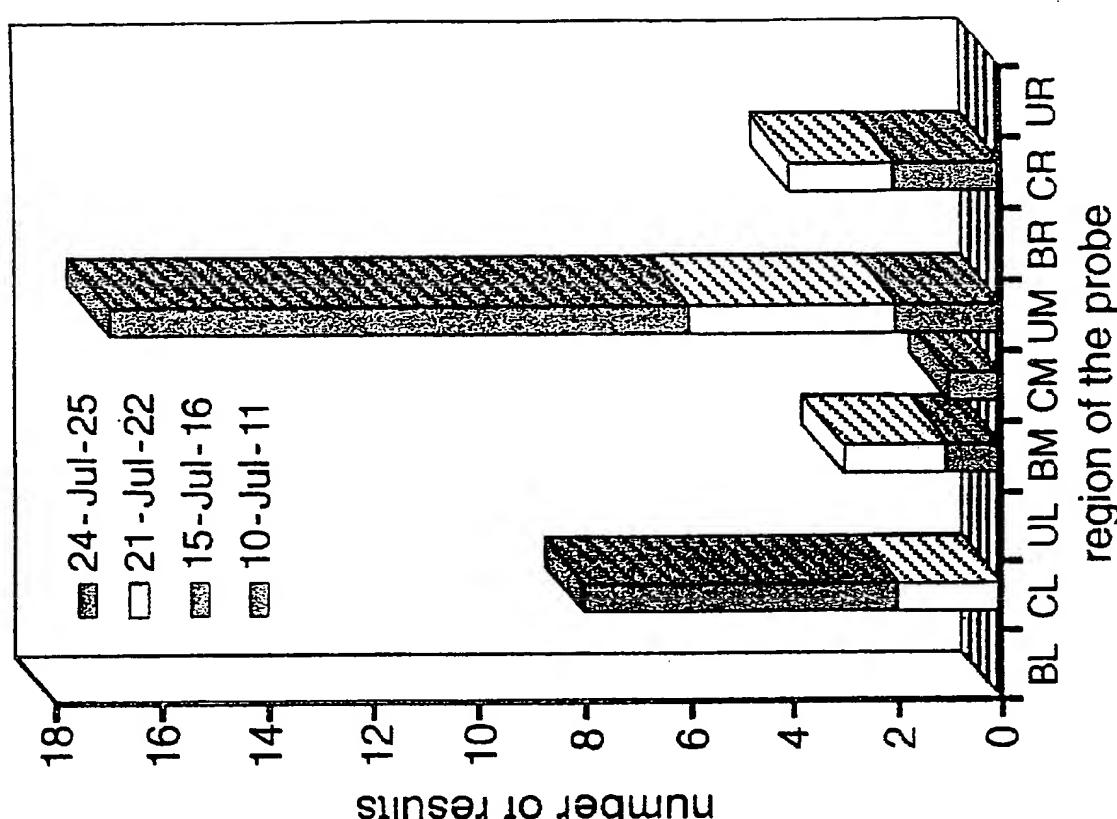
A

B

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Location of Signal Focus - Kate; Phase



Location of Signal Focus - Dipti; Phase

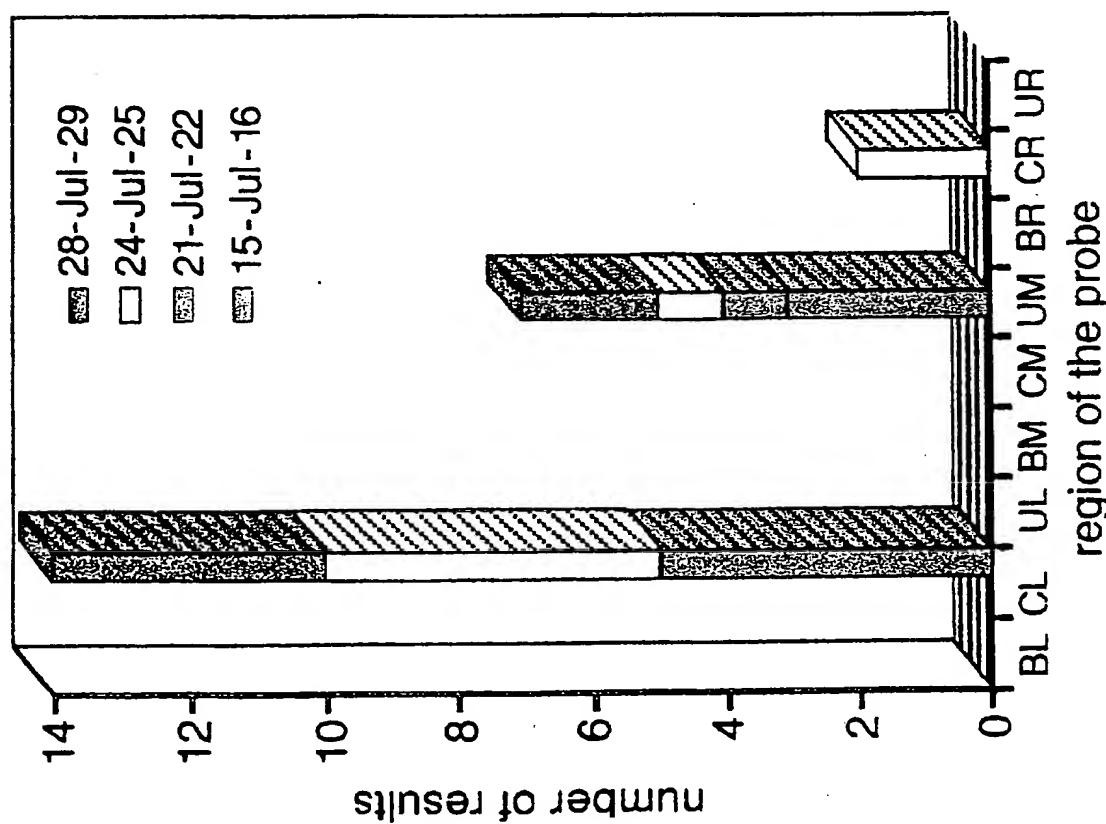


Fig. 14 A

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Fig. 14 B

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50 MHz Phased Array Image of Baby Brain
7-day-old premature baby (9/18/97)

Stimulation of left finger
(spontaneous kicking)



Stimulation of right finger
(no spontaneous kicking)

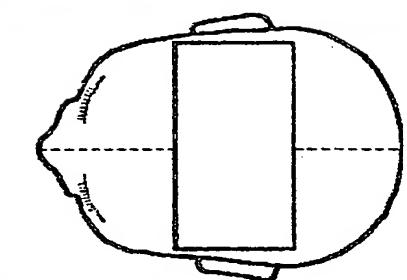


Fig. 15A

Fig. 15B

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